

Appl. No. 10/629,137
Amdt. dated May 08, 2006
Reply to Office Action of March 08, 2006

Docket No. A01181

AMENDMENTS TO CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A triggered response barrier composition comprising: one or more polyelectrolytes in contact with a liquid medium, wherein the barrier composition surrounds, encapsulates or forms a matrix with one or more active ingredients; wherein the barrier composition is stable in the liquid medium; wherein the barrier exhibits one or more chemical/physical responses that is triggered upon one or more ionic strength changes to the liquid medium; and wherein the barrier composition is capable of releasing the active ingredients to the liquid medium as a result of the triggered response; and wherein the polyelectrolyte is selected from one or more of:
 - i) poly(amino acids), poly (amino acid) acrylate emulsion polymers, anionic and amphoteric polysaccharide homopolymers, copolymers and salts thereof;
 - ii) anionic and amphoteric polysaccharide derivatives, anionic and amphoteric polypeptide homopolymers, copolymers and salts thereof;
 - iii) lignosulfonic acid homopolymers, copolymers and salts thereof, ~~ionene homopolymers, copolymers and salts thereof~~;
 - iv) anionic and amphoteric polyester homopolymers, copolymers and salts thereof; and
 - v) anionic and amphoteric polyurethane homopolymers, copolymers and salts thereof.
2. (Currently amended) The triggered response barrier composition according to claim 1 wherein the barrier composition is in the form of a film, wherein the liquid medium is an aqueous system, and wherein the chemical/ physical response of the composition is selected from selected from dispersing, disintegrating, dissolving, destabilizing, deforming, swelling, softening, flowing and combinations thereof.

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3. Cancelled
4. (previously presented) A device for the triggered release of one or more active ingredients to a liquid medium comprising:
 - (a) one or more active ingredients;
 - (b) one or more additives; and
 - (c) a triggered response barrier composition according to claim 1.
5. (currently amended) A process for triggering the release of one or more active ingredients to a liquid medium comprising the steps of
 - (a) ~~Surrounding, encapsulating or forming a matrix with one or more active ingredients with providing~~ a triggered response barrier composition according to claim 1; and
 - (b) altering the ionic strength of the liquid medium;
~~wherein the polyelectrolyte is one or more acidic homopolymers, copolymers, polymer blends and salts thereof; one or more basic homopolymers, copolymers, polymer blends and salts thereof; and one or more amphoteric homopolymers, copolymers, polymer blends and salts thereof and wherein the barrier composition disperses, disintegrates, dissolves or swells and becomes substantially permeable, thereby triggering the release of the active ingredients into the liquid medium.~~
6. (Currently amended) The process according to claim 5 wherein a device for the triggered release of one or more active ingredients to an aqueous system is prepared, the device comprising:
 - (a) one or more of the active ingredients;
 - (b) one or more additives; and
 - (c) ~~a barrier composition the triggered release barrier composition comprising one or more ionic strength responsive polyelectrolytes;~~

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wherein the barrier composition surrounds, encapsulates or forms a matrix with one or more active ingredients; wherein the barrier composition is stable and insoluble in an aqueous system at relatively high ionic strength; wherein the barrier exhibits one or more chemical/physical responses selected from dispersing, disintegrating, dissolving, destabilizing, swelling, softening, flowing and combinations thereof; wherein the chemical/physical response of the composition is triggered upon one or more ionic strength changes to the aqueous system; wherein the device is capable of releasing the active ingredients to the aqueous system as a result of the triggered response of the barrier composition; wherein the device is prepared using coating technology selected from the group consisting of fluid bed spray coating, Wurster coating, Pan coating and co-extrusion, coacervation, spray drying and spray chilling; and optionally, wherein one or more beneficial liquid ingredients are co-granulated with one or more solid active ingredients in the form of solid granules, pellets, tablets, encapsulated granules, sachets, matrix beads and capsules in an altered or separate aqueous system.

7. (currently amended) ~~A triggered~~ The triggered response barrier composition according to claim 1 wherein the liquid medium is water.
8. (currently amended) ~~A triggered~~ The triggered response barrier composition according to claim 1 wherein the liquid medium is non-aqueous.